

ATTACHMENT J1.

Birmingham IAP (ANG), AL Electric Distribution System

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J1 Birmingham IAP (ANG), AL Electric Distribution System

J1.1 Birmingham IAP (ANG), AL Overview

The 117th Air Refueling Wing, Alabama Air National Guard, is located at the Birmingham International Airport. The airport is located to the north and east of downtown Birmingham near the intersection of interstates I-20 and I-59. Originally subdivided by city streets, the ANG station was recently consolidated into a contiguous site by combining three separate real estate parcels into one.

With its roots in the formation of the Birmingham Flying Club, the unit was first federally recognized as the 135th Observation Squadron, Alabama Air National Guard. Renamed the 106th Observation Squadron in 1928, the unit flew and surveyed airmail routes in Alabama. In 1938, the unit moved to Birmingham International Airport. Called to active duty in 1940, the unit designation was changed to 106th Bombardment Squadron and was involved in the Second World War until its end. In 1951, the squadron was again called to active duty for 21 months during the Korean conflict. The unit was reverted to ANG status and became part of the 117th Tactical Reconnaissance Wing. The 117th was called to support the mission during the Berlin crisis in 1961.

In 1990 the unit was deployed to the Middle East in support of both Desert Shield and Desert Storm. Flying RF-4C aircraft, the 117th provided long-range photo reconnaissance along the Kuwait-Iraq border. The 117th returned to Birmingham after successfully completing the mission in December 1990.

In September 1994, the 117th Air Refueling Wing and 106th Air Refueling Squadron was formed and equipped with KC-135 tanker aircraft. Simultaneously, a major revision outlined in the Base Master Plan was initiated to complete improvements in the infrastructure to support the new mission, to unify the existing real estate holdings into one contiguous environ and to implement facility improvements and additions necessary to support the mission. The Master Plan recommendations included the relocation of a city thoroughfare, consolidation of three real estate parcels and the completion of almost \$64 million in facility improvements and construction. To date, all but one of the recommended projects are complete, and it is in the final stages of design.

Birmingham IAP (ANG) consists of approximately 147 acres and essential facilities to support the mission of the 117th ARW and its assigned units. A lease between the Federal Government and The Armory Commission of Alabama, dated 22 January 1961, currently with four Supplemental Agreements, established the initial boundaries and conveyed the lands and buildings for the purpose of military aviation. A Lease Amendment between the Birmingham Airport Authority and the Commission in 1988 established the real estate relationship between the airport authority and the Armory Commission. The lease term expires in the year 2036 but shall continue year to year without notice unless terminated by the Commission.

Prior to 1996, the base was bisected by two city streets - East Lake Blvd and Shelby Blvd. As a part of the Master Plan update, East Lake Blvd was rerouted around the base perimeter, Shelby Blvd was transferred to the ANG with a lease amendment, and the individual land parcels were consolidated into one tract of land. This consolidation greatly improved internal traffic circulation, security and unit operations. Prior to the road relocation, this area was in a municipal environment with the

utilities routed along the city street easements and rights of way. Electric service was initially supplied by overhead wires and buildings individually metered for consumption and billing. This was changed recently to economize energy costs by establishing with the utility a main feeder with a single primary meter. The ANG provides secondary distribution to the on-base facilities through a system of underground conduits. The overhead wiring remains in service to provide electrical service for street lights and other units occupying the base.

The 117th ARW occupies 101 facilities including offices, mission support structures, maintenance hangars, POL storage and refueling station and a Joint Hospital. The Wing currently has 9 authorized KC-135 Stratotankers. The current compliment of personnel is 275, including military and civilian employees. This expands to 1,243 personnel for UTA weekends and during activation.

The Alabama Army National Guard (ARNG) has facilities and units co-located on the base. These facilities provide for aircraft hangar and maintenance, the 109th Evacuation Hospital and OMS storage facility. The 109th Evac Hospital also supports ARNG/ANG weekend drill activities and unit activation's. In addition, the Federal Aviation Administration has two radar sites within the confines of the base.

The Federal Aviation Administration and the ARNG facilities and units are not included as part of this evaluation.

J1.2 Electric Distribution System Description

J1.2.1 Electrical System Fixed Equipment Inventory

The Birmingham IAP (ANG), AL electric distribution system consists of all appurtenances physically connected to the distribution system from the point in which the distribution system enters the Base and Government ownership currently starts to the point of demarcation, defined by the real estate instruments (Exhibit B). The system may include, but is not limited to, transformers, circuits, protective devices, utility poles, ductbanks, switches, street lighting fixtures, and other ancillary fixed equipment. The following description and inventory is included to provide the Contractor with a general understanding of the size and configuration of the distribution system. The Government makes no representation that the inventory is accurate. The Contractor shall base the proposal on site inspections, information in the technical library, other pertinent information, and to a lesser degree the following description and inventory. Under no circumstances shall the Contractor be entitled to any service charge adjustments based on the accuracy of the following description and inventory.

J1.2.1.1 Description

Birmingham ANG purchases electricity consumed at the base from Alabama Power Company. The primary feed is relatively new and well maintained by the utility. The usage is determined at an Alabama Power owned and maintained primary metering point located near the intersection of Old East Lake Boulevard and 57th Street. The power is then distributed over a single government owned distribution feeder, which is less than five years old. The nominal distribution voltage is 13.2 kV grounded WYE. The majority of the government owned distribution feeder is underground. However, there is presently one span of overhead line, approximately 1,200 lf, between a point where Alabama Power provides distribution to other tenants at the metered pole transformers and the installation's transition to the underground service.

A government owned, electronic controlled circuit recloser located near the intersection of Old East Lake Boulevard and 57th Street provides the main feeder fault protection for the distribution feeder. This recloser is mounted in conjunction with the transition point from the overhead to underground service.

Alabama Power owns and maintains two secondary metering points, one at Building 205, and the other at the Vehicle Maintenance area, Buildings 620 and 610.

Birmingham ANG presently has one reimbursable customer. This customer operates a canteen and gas station at the base. The meters at these locations are presently maintained and read by base personnel.

No major improvements or modifications are required to meet regulatory or operational demands. In so much as the system has been improved to meet the utility demands established in the Master Plan, there are no immediate operational or adequacy issues.

J1.2.1.2 Inventory

Table 1 provides a general listing of the major electrical system fixed assets for the Birmingham IAP (ANG), AL electrical distribution system included in the purchase. The system will be sold in an “as is, where is” condition, without any warranty, representation, or obligation on the part of the Government to make alterations, repairs, or improvements. All ancillary equipment attached to and necessary for operating of the system, though not specifically mentioned here in, is considered part of the purchased utility.

TABLE 1

Fixed Inventory

Electrical Utility System Birmingham IAP (ANG), AL

Qty	Unit	Description	AGE
0.23	W.Mile	Overhead line cndct & dvc, cndct, instl cndct,per W, 210 to 636 kcmil	16
3,257	LF	High voltage cable, neutral & conduit included, copper #1, 15 KV	16
2,180	LF	High voltage cable, neutral & conduit included, copper #1, 15 KV	3
1,275	LF	High voltage cable, neutral & conduit included, copper #1, 15 KV	5
500	LF	High voltage cable, neutral & conduit included, copper #1, 15 KV	6
750	LF	High voltage cable, neutral & conduit included, copper 2/0, 15 KV	16
1,825	LF	High voltage cable, neutral & conduit included, copper 4/0, 15 KV	1
12	CLF	Wire, 600 volt, copper type XLPE-USE(RHW), stranded, 500 kcmil	16
2	CLF	Wire, 600 volt, copper type XLPE-USE(RHW), stranded, 500 kcmil	6
4	CLF	Wire, 600 volt, copper type XLPE-USE(RHW), stranded, 500 kcmil	3
11	CLF	Wire, 600 volt, copper type XLPE-USE(RHW), stranded, 500 kcmil	1

1	EA	Transformers, 3 phase, 45 kVA	16
4	EA	Oil fed XFMR, 5 kV or 15 kV, W/ taps, 277/480 V sec, 3 ph, 150 kVA	16
1	EA	Oil fed XFMR, 5 kV or 15 kV, W/ taps, 277/480 V sec, 3 ph, 150 kVA	6
3	EA	Oil fed XFMR, 5 kV or 15 kV, W/ taps, 277/480 V sec, 3 ph, 150 kVA	3
1	EA	Oil fed XFMR, 5 kV or 15 kV, W/ taps, 277/480 V sec, 3 ph, 225 kVA	16
1	EA	Oil fed XFMR, 5 kV or 15 kV, W/ taps, 277/480 V sec, 3 ph, 225 kVA	3
3	EA	Oil fed XFMR, 5 kV or 15 kV, W/ taps, 277/480 V sec, 3 ph, 300 kVA	16
2	EA	Oil fed XFMR, 5 kV or 15 kV, W/ taps, 277/480 V sec, 3 ph, 300 kVA	5
1	EA	Oil fed XFMR, 5 kV or 15 kV, W/ taps, 277/480 V sec, 3 ph, 300 kVA	1
3	EA	Oil fed XFMR, 5 kV or 15 kV, W/ taps, 277/480 V sec, 3 ph, 500 kVA	16
1	EA	Oil fed XFMR, 5 kV or 15 kV, W/ taps, 277/480 V sec, 3 ph, 500 kVA	4
4	EA	Oil fed XFMR, 5 kV or 15 kV, W/ taps, 277/480 V sec, 3 ph, 500 kVA	3
1	EA	Oil fed XFMR, 5 kV or 15 kV, W/ taps, 277/480 V sec, 3 ph, 500 kVA	1
1	EA	Substa equip,disc swes,gang operated swes,man operation,13 to 26 kV	16
5	EA	Swgear, ld int sw, 600 amp, 2 posn, NEMA 1, 13.8 kV, 400 kVA&abv	16
3	EA	Swgear, ld int sw, 600 amp, 2 posn, NEMA 1, 13.8 kV, 400 kVA&abv	5
3	EA	Swgear, ld int sw, 600 amp, 2 posn, NEMA 1, 13.8 kV, 400 kVA&abv	3
1	EA	Swgear, ld int sw, 600 amp, 2 posn, NEMA 1, 13.8 kV, 400 kVA&abv	1
3	EA	Protective equipment, fuses, 13 to 26 kV	16
1	EA	Electric & tel sitework, ps, wd, treatment, 40' high	16

NOTES:

W.miles = wire miles

LF = linear feet

CLF = hundred linear feet

EA = each

J1.2.2 Electrical System Non-Fixed Equipment and Specialized Tools Inventory

- **Table 2** lists other ancillary equipment (spare parts) and **Table 3** lists specialized vehicles and tools included in the purchase. Offerors shall field verify all equipment and tools prior to submitting a bid. Offerors shall make their own determination of the adequacy of all equipment and tools. The successful Contractor shall provide any and all equipment, vehicles, and tools, whether included in the purchase or not, to maintain a fully operating system under the terms of this contract.

TABLE 2

Spare Parts

Electrical System Birmingham IAP (ANG), AL

Qty	Item	Make/Model	Description	Remarks
NONE				

TABLE 3

Specialized Vehicles and Tools

Electrical System Birmingham IAP (ANG), AL

Description	Quantity	Location	Maker
NONE			

J1.2.3 Electric System Manuals, Drawings, and Records Inventory

- **Table 4** lists the manuals, drawings, and records that will be transferred with the system.

TABLE 4

Manuals and Records

Electrical System Birmingham IAP (ANG), AL

Qty	Item	Description	Remarks
1 Set	As Built Drawings		See the Base Civil Engineer

J1.3 Specific Service Requirements

- The service requirements for the Birmingham IAP (ANG), AL electrical distribution system are as defined in the Section C, *Description/Specifications/Work Statement*.

J1.4 Current Service Arrangement

Electrical power is provided by Alabama Power Company. During the period September 1996 through June 1999, the maximum peak demand was 1,838 kW. The demand varies according to seasonal changes, with peaks occurring in both summer and winter. This demand cycle is expected to remain unchanged for the immediate future. The average annual consumption is approximately 4,770,000 kWh.

J1.5 Secondary Metering

The Base may require secondary meters for internal billings of their reimbursable customers, utility usage management, and energy conservation monitoring. The Contractor shall assume full ownership and responsibility for existing and future secondary meters IAW Paragraph C.3.

J1.5.1 Existing Secondary Meters

Table 5 provides a listing of the existing (at the time of contract award) secondary meters that will be transferred to the Contractor. The Contractor shall provide meter readings once a month for all secondary meters IAW Paragraph C.3 and J1.6 below.

TABLE 5

Existing Secondary Meters

Electrical System Birmingham IAP (ANG), AL

Meter Location	Meter Description
One meter located at the Canteen/Gas Station	Service meter
Bldg 550	Service meter
Bldg 650	Service meter
Bldg 750	Service meter
Bldg 4956	Service meter
Bldg 430	Service meter
Bldg 225	Service meter
Bldg 450	Service meter
Bldg 203	Service meter
Bldg 200	Service meter
Bldg 202	Service meter
Bldg 190	Service meter
Bldg 391	Service meter
Bldg 175	Service meter
Bldg 151	Service meter
Bldg 149	Service meter
Bldg 141	Service meter
Bldg 138	Service meter
Bldg 135	Service meter
Bldg 125	Service meter
Bldg 40	Service meter
Bldg 30	Service meter
Bldg 12	Service meter
Bldg 9	Service meter

J1.5.2 Required New Secondary Meters

The Contractor shall install and calibrate new secondary meters as listed in **Table 6**. New secondary meters shall be installed IAW Paragraph C.13, Transition Plan. After installation, the Contractor shall maintain and read these meters IAW Paragraphs C.3 and J1.6 below.

TABLE 6

New Secondary Meters

Electrical System Birmingham IAP (ANG), AL

Meter Location	Meter Description
NONE	

J1.6 Monthly Submittals

The Contractor shall provide the Government monthly submittals for the following:

1. Invoice (IAW G.2). The Contractor's monthly invoice shall be presented in a format proposed by the Contractor and accepted by the Contracting Officer. Invoices shall be submitted by the 25th of each month for the previous month. Invoices shall be submitted to the address to be identified at time of award.
2. Outage Report. The Contractor's monthly outage report will be prepared in the format proposed by the Contractor and accepted by the Contracting Officer. Outage reports shall be submitted by the 25th of each month for the previous month. Outage reports shall be submitted to the address to be identified at time of award.
3. Meter Reading Report. The monthly meter reading report shall show the current and previous month readings for all secondary meters. The Contractor's monthly meter reading report will be prepared in the format proposed by the Contractor and accepted by the Contracting Officer. Meter reading reports shall be submitted by the 15th of each month for the previous month. Meter reading reports shall be submitted to the address to be identified at time of award.
4. System Efficiency Report. If required by Paragraph C.3, the Contractor shall submit a system efficiency report in a format proposed by the Contractor and accepted by the Contracting Officer. System efficiency reports shall be submitted by the 25th of each month for the previous month. System efficiency reports shall be submitted to the address to be identified at time of award.

J1.7 Energy Saving Projects

IAW C.3, Requirement, there have been NO energy conservation projects implemented on the distribution system by the Government.

J1.8 Service Area

IAW Paragraph C.4, Service Area, the service area is defined as all areas within the Birmingham IAP (ANG), AL boundaries.

J1.9 Off-Installation Sites

No off-installation sites are included in the sale of the Birmingham IAP (ANG), AL electric distribution system.

Martin ANG Station, Gadsdon, AL is a satellite facility of Birmingham IAP (ANG), AL, but it is not included in this privatization action.

J1.10 Specific Transition Requirements

IAW Paragraph C.13, Transition Plan, **Table 7** lists service connections and disconnection's required upon transfer, and **Table 8** lists the improvement projects required upon transfer of the Birmingham IAP (ANG), AL electric distribution system.

TABLE 7

Service Connections and Disconnection's
Electrical System Birmingham IAP (ANG), AL

Location	Description
NONE	

TABLE 8

System Improvement Projects
Electrical System Birmingham IAP (ANG), AL

Project Location	Project Description
Bldgs 205 & 620	Construct additional electrical duct bank; Project BRKR962004